



Academic Common Market Student Demographic Analysis

Overview

The Academic Common Market is a tuition-savings program that allows students to pursue uncommon academic programs not offered in their home state at in-state tuition rates. Composed of 15 participating Southern states, the ACM represents a collaborative educational initiative that extends beyond geographical boundaries. Participant data for the Academic Common Market program reveals the economic, racial and geographic composition of the communities in which ACM students live, signaling disparities in program participation.

This brief reveals stark differences in the socioeconomic backgrounds of students participating in the Academic Common Market. Specifically, it indicates that there are fewer students from low-income, rural and urban communities represented in the program.

First, **middle-income areas significantly dominate the landscape in which ACM-certified students live, compared to their lower-income and upper-income counterparts.** In the period between fall 2011 to fall 2023, the prevalence of ACM students coming from middle-income ZIP code areas was over four times higher than those from either lower- or

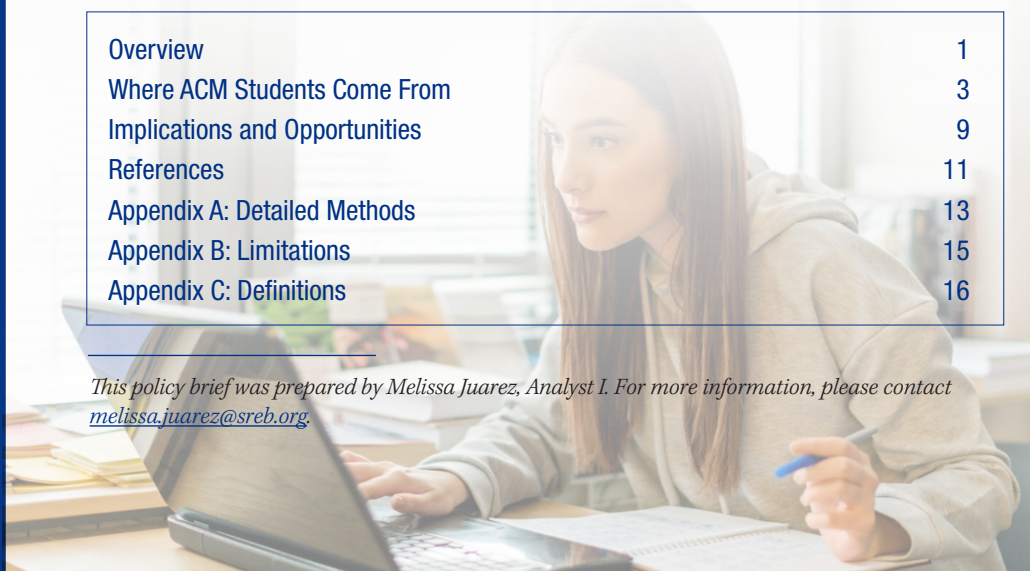
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This policy brief was prepared by Melissa Juarez, Analyst I. For more information, please contact melissa.juarez@sreb.org.



upper-income ZIP code areas, making up just over 80% of students. Despite this trend, the ACM saw a 52% increase in students from low-income areas between 2011 and 2021.

Furthermore, **ACM students are more likely to reside in suburban and predominantly white ZIP code areas.** Using the urbanization delineations from the National Center for Health Statistics (Appendix A.4), SREB found that the prevalence of suburban residency among ACM students is eight and nine times higher than for urban or rural settings. As the proportion of urban and suburban students fluctuates, the program has seen a 40% decrease in the representation of rural students receiving certification between 2011 and 2023.

The data also reveals trends related to the pandemic from 2019 to 2023, specifically relating to the economic makeup of the program. Starting in 2022, **SREB is witnessing a resurgence in ACM certification among students from middle and upper-income areas, leaving their peers from lower-income neighborhoods to play catch-up.**

The subsequent analysis examines who received certification and where they came from during the last 12 years of the ACM program. By examining ZIP codes as a proxy for income, race and geography, we delve into the geographical roots of ACM-certified students and evaluate how the socio-economic attributes of these regions have evolved over time, while concurrently exploring the potential link between specific socio-economic backgrounds and the production of ACM students.

Methods & Limitations

The dataset used for this analysis contains information about 34,918 ACM-certified students between the beginning of the 2011 fall semester to the end of the 2023 fall semester. SREB collects name, address and program information related to a student's residency and program for which they receive tuition reciprocity benefits. SREB does not collect specific demographic information for each unique student; we do not collect student-specific race, gender or income data. **Therefore, this analysis primarily focuses on community-level characteristics based on the students' ZIP code data that can help us make inferences about the economic, racial and geographic context in which ACM students live.**

The primary limitation of this analysis is the absence of specific demographic data for ACM-certified students. Instead, this analysis relies on community-level data using a student's ZIP code and its corresponding demographic information. The challenge in doing this is that not all students from a particular ZIP code will fit the average demographic profile reported at the ZIP code level. For example, just because a student lives in a middle-income community, it does not mean that they come from a middle-income household themselves. Nonetheless, aggregated-level data, despite its limitations, can still highlight broader regional trends and disparities. While individual-level data offers a more granular understanding, aggregated data can offer a bird's-eye view of overarching trends for the regions that tend to produce Academic Common Market participants.

Due to the unavailability of census data at the time of analysis, we projected income data for 2023 using the Bureau of Labor Statistics Consumer Price Index for All Urban Consumers (Appendix B.2). However, this method may overlook factors like gentrification and local economic shifts that affect income trends year by year.

Additionally, 41% of the 34,918 ACM-certified students since 2011 have missing ZIP code data. Delaware, Maryland and West Virginia exhibit high levels of missing ZIP code data for students in the ACM, impacting the reliability of findings for these states due to incomplete datasets and varying reporting protocols by state (Appendix B.3).

Further information about the methods, limitations and definitions relevant to this report can be found in Appendices A, B and C. Readers can access an online report with interactive visualizations on the SREB website.

Where ACM Students Come From

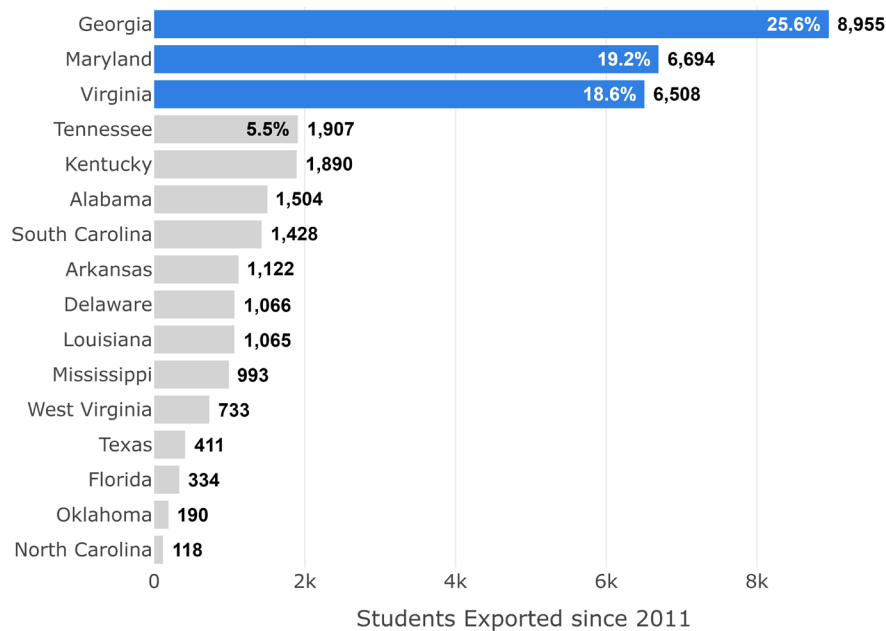
Between 2011 and 2023, 34,918 unique students have been certified in the Academic Common Market program across the South.

Almost half of all ACM students come from Georgia, Maryland or Virginia.

The graph shows that between 2011 and 2023, a substantial portion of ACM students originated from just three states: Georgia, Maryland and Virginia. Georgia is the leading exporter, accounting for 25.6% of ACM students, followed by Maryland and Virginia. In fact, over 45% of all ACM students have come from the Atlanta, Sandy Springs and Roswell, Georgia; and Washington, D.C.; Arlington, Virginia; and Alexandria, Maryland metropolitan areas.

Georgia, Maryland and Virginia have exported over 60% of ACM students since 2011.

The number and percentage of students coming from a given state



Source: SREB's ACM Data

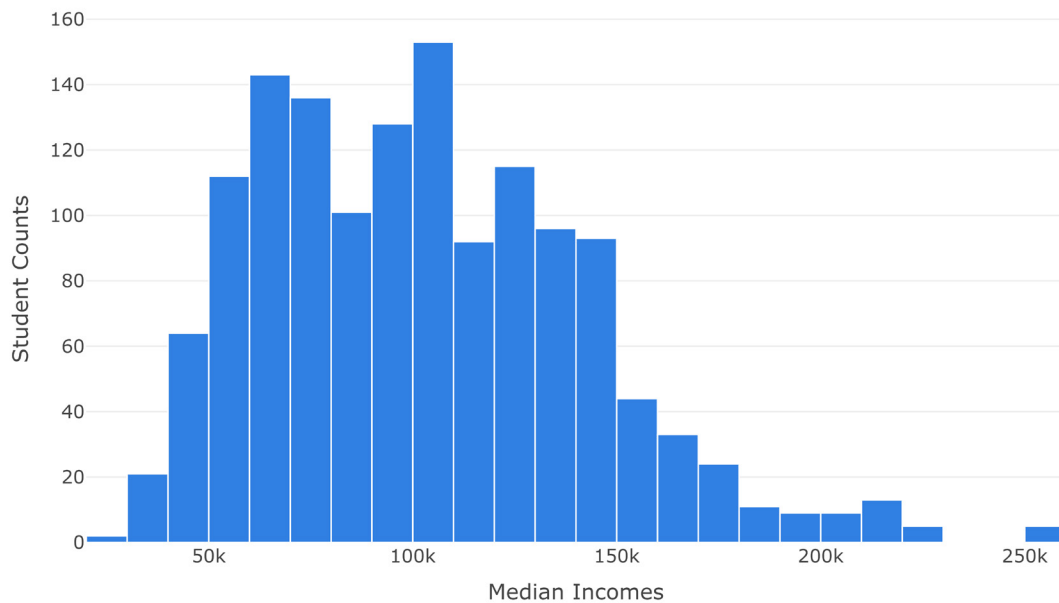
These three states together contribute a proportion of students that exceeds the combined total of the other 13 states. This data underscores the significant role that Georgia, Maryland and Virginia play in shaping the ACM program's participant demographics.

The following parts of the analysis report on data from 20,510 unique students whose ZIP codes have been made available by ACM state coordinators. Appendix B.3 includes more information about data reporting by state.

ACM certified four times more students from middle-income areas than lower- and upper-income students combined.

The data regarding ACM certification patterns indicates that the program certified students from middle-income areas at a significantly higher rate compared to both lower and upper-income areas.

Median Incomes in ACM Students' Hometowns for 2022 Cohort



Sources: 2022 ACS Five-year Estimates, SREB's ACM Data

A snapshot of the income distribution for the 2022 ACM cohort paints a clear picture: half of the 2022 ACM cohort hails from ZIP code areas where the median income exceeds \$99,764. Furthermore, the top 25% of ACM students in 2022 originated from ZIP codes with a median income above \$128,682, underlining that the majority of the 2022 cohort originated from areas characterized by middle-class households.

Applying income tier thresholds based on the 2022 Pew Research report *How the American Middle Class Has Changed in the Past Five Decades*, our analysis reveals that in 2022, 83.5% of students came from middle-income areas, while 5.4% originated from upper-income areas and 11.1% came from lower-income area. This pattern remains consistent over the long term, with figures between 2011 and 2023 indicating that 80.2% of students have originated from middle-income areas, 5.8% from upper-income areas and 14.1% from lower-income areas. Note that the percentages may not add up to 100% due to rounding.

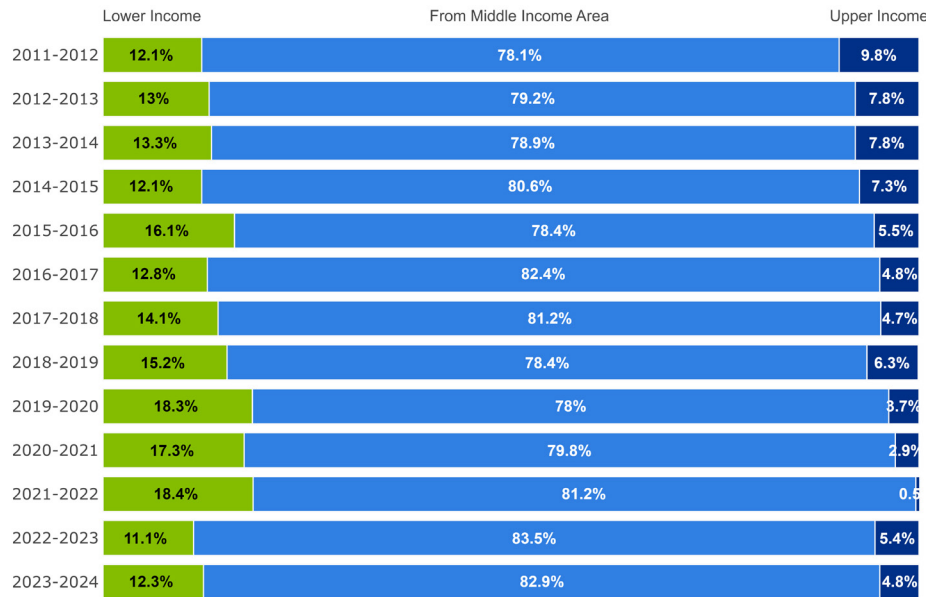
On average, students participating in the ACM program from middle-income areas have been more than four times higher than those from either lower- or upper-income areas.

Students from lower-income areas are on the rise.

Despite the pronounced difference in the proportions of students from the various income tiers, a closer examination of these trends over the years reveals dynamic changes in the program's composition.

ACM saw an increase of students from lower income areas between 2011 and 2021.

The proportion of students coming from lower, middle and upper income areas



Sources: 2011-2022 ACS Five-year Estimates, Bureau of Labor Statistics, SREB's ACM Data

When assessing the period from 2011 to 2023, it becomes evident that among the three income tiers, the upper and lower-income groups have experienced the most substantial shifts. From 2011 to 2021, there was a 52% increase in the proportion of students hailing from lower-income ZIP code areas, reaching its peak at 18.4% in 2021. Conversely, the proportion of students originating from upper-income ZIP code areas has markedly dwindled, starting at nearly 10% in 2011 and eventually shrinking to a mere 0.5% in 2021.

This trend corresponds with a broader nationwide shift in the demographic composition of college students. According to Pew Research Center, between 1996 and 2016, undergraduate students increasingly came from low-income families, especially at less selective four-year colleges, two-year colleges and private, for-profit colleges. While the ACM primarily collaborates with public four-year institutions at the bachelor's degree level and above, 84% of ACM students seek bachelor's degrees, suggesting the relatively modest income shifts witnessed in our data align with the existing landscape of college-bound students across the nation.

Moreover, regional educational programs have actively promoted access and affordability initiatives for low-income students. Open Educational Resource initiatives within the SREB region advocate for using free educational materials and textbooks, addressing the financial burden faced by college students. As highlighted in the 2021 SREB Fact Book, college students

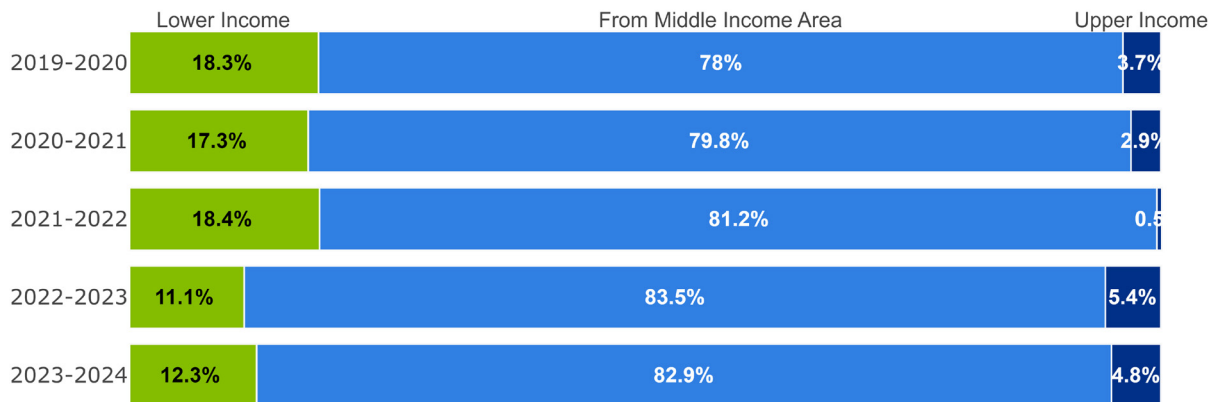
can spend over \$1,200 per year on academic materials, a cost that is most burdensome for low-income students. Initiatives like OER have demonstrated success, as indicated by 2020 and 2023 reports from Bay View Analytics, which revealed that 38% of postsecondary institution professors reported using OER resources for required course materials in 2022, an increase from 15% in 2019. These initiatives play a vital role in alleviating financial challenges for low-income students and contribute to the broader efforts to enhance access and affordability in higher education.

How was participation in the ACM impacted by the pandemic?

Between 2018 to 2023, the volume of ACM certifications declined. Students from middle- and upper-income ZIP code areas experienced the most significant drop in ACM certifications immediately after the pandemic. However, during the 2022-23 and 2023-24 academic years, certifications for students from middle and upper-income ZIP code areas rose while certifications for students from low-income ZIP code areas did not show the same recovery.

ACM students are less likely to come from lower income areas after the pandemic.

The proportion of students coming from lower, middle and upper income areas



Sources: 2019-2022 ACS Five-year Estimates, Bureau of Labor Statistics, SREB's ACM Data

During the 2022-2023 academic year, certifications for ACM students from middle- and upper-income areas increased more rapidly than for students living in lower-income areas, highlighting that students from low-income areas have not rebounded to the same extent as their peers.

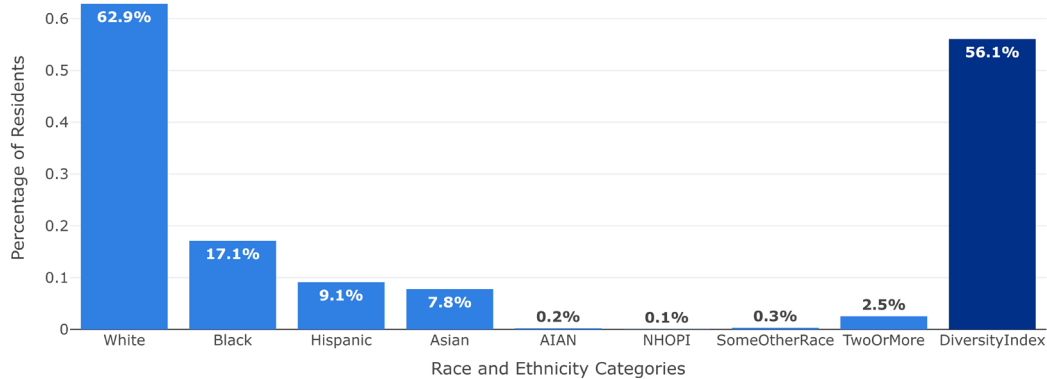
Overall, the data suggests that as the ACM program has been recovering from an enrollment drop during the pandemic, certification numbers for students from low-income areas have not recovered to the same extent as those from middle and upper-income areas. In fact, the percentage of students from lower-income areas is now lower than it was just before the pandemic began, despite the previous 10-year trend of increasing representation from this demographic.

The typical ACM student comes from predominantly white and suburban areas.

The American Community Survey reveals the racial and ethnic makeup of each ZIP code in the United States. By matching this information with SREB data, we found the overarching racial and ethnic makeup of the communities from which ACM students originate. This data reflects the makeup of the communities in which ACM students live, rather than the makeup of the students themselves.

The average student in the ACM program comes from a predominantly white area. Specifically, they come from an area where 62.9% of the population is white, 17.1% is Black, and 9.1% is Hispanic. The diversity index highlights that within the typical ACM student's ZIP code area, there is a 56.1% chance that two randomly chosen residents will come from different racial and ethnic backgrounds.

The average ACM hometown between 2011 and 2023 has been composed of mostly white residents.



Sources: 2011-2022 ACS Five-year Estimates, Bureau of Labor Statistics, SREB's ACM Data

In more tangible terms, the average ACM student comes from an area where a resident is 3.7 times more likely to be white than Black and 6.9 times more likely to be white than Hispanic. This insight closely aligns with demographic patterns found in urban and rural areas.

Studies in 2018 by the U.S. Department of Agriculture's Economic Research Service and Pew Research Center reveal that urban neighborhoods tend to exhibit greater racial and ethnic diversity compared to suburban and rural locales. While white Americans have become a minority in urban counties, they are still a majority for around 9 in 10 suburban and rural counties.

For instance, the U.S. Census Bureau's Population Estimates Program estimated that in 2022, Atlanta housed a population comprised of 41% white, 48% Black and 5% Hispanic residents. This stands in stark contrast to the demographic distribution in the average ACM student's hometown.

In line with the connection between race and geography, SREB found that the majority of ACM students predominantly reside in suburban areas.

Most ACM students came from suburban counties, while proportion of rural students decreased.

The percentage of students coming from urban, suburban and rural counties

	Urban	Suburban	Rural
2011-2012	11.3%	78.3%	10.5%
2012-2013	11.8%	77.5%	10.6%
2013-2014	11.7%	77.8%	10.4%
2014-2015	11.4%	80.2%	8.5%
2015-2016	9.4%	81.2%	9.3%
2016-2017	9.1%	83.5%	7.4%
2017-2018	8.4%	83.9%	7.7%
2018-2019	7.2%	84.5%	8.3%
2019-2020	9.9%	81.6%	8.5%
2020-2021	10.2%	81%	8.8%
2021-2022	10.1%	80.3%	9.6%
2022-2023	9.4%	84.1%	6.4%
2023-2024	11.7%	82.1%	6.3%

Sources: NCHS 2013 Urban Rural Classification Scheme, SREB's ACM Data

Mapping student ZIP codes to their counties, we found that most ACM students have been suburban residents. The proportion of rural students has also decreased since 2011.

In 2011, rural students constituted 10.5% of the ACM student body, but this proportion has decreased by more than a third since then. Currently, only 6.3% of ACM students originate from rural areas. During this time, suburban students have seen an increase in representation, while urban student proportions have experienced fluctuations.

In summary, when considering 2011 to 2023, an average of 81.2% of students were classified as suburban residents, with 10.1% being urban and 8.7% rural. The prevalence of ACM students being suburban residents was eight and nine times higher than for being urban or rural residents.

Implications and Opportunities

The analysis above has shown that between 2011 to 2023, the typical ACM students lived in suburban, predominantly white, middle-income areas, with a smaller representation from low-income, rural and racially diverse areas. Specifically:

- **Post-Pandemic Re-engagement:** Students living in lower-income areas have shown limited re-engagement with the ACM program after the pandemic,

whereas those in middle and upper-income areas have returned to participation more noticeably. This trend alerts us to potential disparities in program accessibility to mitigate the effects of the pandemic based on income stratification.

- **Middle-income majority, lower income growth:** Throughout the past 12 years of the program, students from middle-income areas have made up most ACM students. At the same time, there was a 52% growth in the proportion of students from lower-income areas from 2011 to 2021.
- **Suburban, white majority, Rural decline:** The ACM program's predominant demographic composition consists of students hailing from suburban areas and predominantly white communities. There has been a decline in the representation of students from rural backgrounds.

The interplay of economic, geographic and racial demographics for communities represented in the Academic Common Market underscores the intricate web of factors shaping higher education demographics at large.

One such trend is the increasing growth of the suburban population. Studies by Lichter in 2023 and Pew Research Center in 2020 reveal that while suburban areas are becoming more diverse, most of the American suburban population remains non-Hispanic white. This demographic pattern is mirrored in the ACM, with most students coming from suburban areas for which the average racial and ethnic composition is predominantly white.

Moreover, existing research highlights the connection between suburban areas and their wealth, apart from just race. The same 2020 report by Pew Research Center noted that suburban areas are typically associated with higher incomes compared to urban areas, although the income gap has been narrowing. In 2018, the average household income for suburban areas was \$101,000, higher than the income for the urban core by \$9,000. In 2000, this gap was \$13,000. Among undergraduate students specifically, data from the 2016 National Postsecondary Student Aid Study, as reported by Pew in May 2019, showed that among four-year institutions, 46% of dependent students came from lower-middle to middle-income families, while 33% came from families in or near poverty. Middle-income households dominate both the makeup of undergraduate students as well as the national suburban landscape.

By focusing on the socioeconomic characteristics highlighted both in our program and nationwide, we can identify who is left behind, namely low-income and rural students. The lower representation of rural students is compounded by several factors. First, rural areas, in general, have smaller populations than suburban and urban areas. According to the Rural School and Community Trust's 2019 edition of *Why Rural Matters: The Time is Now*, the limited representation of rural students is further exacerbated by the fact that students in rural areas are the least likely to attend college. The report notes that this discrepancy persists even though students in rural high schools are more likely to take dual-enrollment courses compared to students in suburban or urban high schools.

Acknowledging the parallels between our program and the greater landscape, it becomes evident that addressing issues of access is a multifaceted endeavor that requires a comprehensive approach to bridge these disparities. Further, the demographic profile identified in this analysis

emphasizes the importance of recognizing that these dynamics do not exist in isolation and that efforts to address one facet should be considered in a broader context.

Thus, while our data underscores the prevalence of suburban and middle-class communities that bring students to the ACM program, there are silver linings that merit our attention. It emphasizes the ongoing importance of initiatives aimed at broadening access to low-income communities, ensuring that more students can benefit from the ACM. Equally important is the pressing need to engage rural students in our programs, acknowledging the wealth of untapped potential in these areas. These students represent a crucial resource for enhancing workforce preparation and vitality in the South and fostering diversity and resilience in the region's educational landscape.

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Appendix A: Detailed Methods

The dataset used for this analysis contains information about 34,918 ACM-certified students between 2011 to 2023. SREB collects name, address and program information related to a student's residency and program for which they receive tuition reciprocity benefits. SREB does not collect specific demographic information for each unique student; we do not collect student-specific race, gender or income data. Therefore, this analysis primarily focuses on community-level characteristics based on the students' ZIP code data that can help us make inferences about the economic, racial and geographic context in which ACM students live.

A.1: Data Cleaning

To ensure data accuracy and completeness, SREB implemented a data cleaning process. USPS address validation was employed to address missing ZIP codes and correct inconsistencies in the dataset. In cases where students had provided their street address, city and state information but were missing ZIP code data, researchers used USPS's address validation Application Programming Interface to input the missing ZIP code details. Given the large dataset, we acknowledge that data entry errors may still exist if the state and ZIP code provided by a student or state coordinator do not align with USPS records.

A.2: Matching Students with Median Zip Code Income

SREB matched students with the median income of their respective ZIP codes for the year in which they were certified. We sourced the median income data by ZIP code from the U.S. Census Bureau's American Community Survey 5-year estimates spanning the years 2011 to 2022. Since the Census income data for 2023 was not yet available at the time of the analysis, SREB projected the incomes for that year by adjusting the 2022 figures according to the Consumer Price Index For All Urban Consumers specific to the South between 2022 and 2023. SREB sourced this data from the Bureau of Labor Statistics. It is important to highlight that this method solely accounts for inflation effects and does not consider gentrification, community investments, technological change, or other factors that can impact the economic composition of a ZIP code year by year.

A.3 Matching Students with Racial Composition

In addition to matching students with the median income of their ZIP codes, SREB analysts matched students with the racial composition of their respective ZIP codes for the year in which they were certified. Analysts sourced the race and ethnicity data by ZIP code from the U.S. Census Bureau's American Community Survey five-year estimates spanning the years 2011 to 2022. Each racial and ethnic category is mutually exclusive as defined by the census. Due to the unavailability of racial data for 2023, SREB approximated the racial compositions for that year based on the compositions of the last available year, 2022. This method does not account for migration or other factors that can influence the racial and ethnic composition of a ZIP code.

A.4: Urban-Rural Classification

To categorize students based on their geographic characteristics, we utilized the 2013 National Center for Health Statistics Urban Rural Classification Scheme for counties; this dataset contains the most up-to-date data available with a scheduled update coming in 2024. First, we translated student ZIP codes into county approximations using the HUD USPS Zip Code Cross Walk Files, which relate USPS ZIP codes to Census Bureau geographies, including county and Core-Based Statistical Area designations. Subsequently, SREB used the NCHS data to classify each student's approximated county, referencing six classifications ranging from Large Central Metro to non-core. For the purpose of this analysis, researchers collapsed the NCHS codes into three broad categories: Urban, Suburban and Rural. Urban includes the large central metro counties code, suburban includes the large fringe metro counties, medium metro counties and small metro counties codes, while rural includes the micropolitan and non-core counties codes.

Appendix B: Limitations

B.1: Limited Demographic Information

As previously mentioned, the primary limitation of this analysis is the absence of specific demographic data for ACM-certified students. The analysis relies on aggregated income and geographic data at the ZIP code level, making it challenging to explore individual characteristics such as race, gender and household size. The limitation of using community-level characteristics as a proxy for individual student characteristics is that not all students from a particular community will fit the same demographic profile, and there can be significant variation within a given community. For example, just because a student lives in a middle-income community, it does not mean that they are middle-income themselves. Nonetheless, aggregated-level data, despite its limitations, can still provide valuable insights into broader regional trends and disparities. While individual-level data offers a more granular understanding, aggregated data can offer a bird's-eye view of overarching trends within the Academic Common Market.

B.2: Projection of Income Data

To account for the unavailability of Census income data for 2023, we projected median incomes for that year using the Consumer Price Index for All Urban Consumers inflation indexes from the Bureau of Labor Statistics between 2022 and 2023. This method assumes that changes in median income are solely due to inflation, overlooking other factors such as gentrification, technological change or local economic shifts that can influence income patterns within a ZIP code.

State Abbr.	Students with Missing Zipcodes	Total Certified Students	% Missing per State
WV	719	733	98.1%
DE	1,035	1,066	97.1%
NC			94.9%
MD	6,342	6,694	94.7%
AL	1,131	1,504	75.2%
TN	1,333	1,907	69.9%
KY	1,088	1,890	57.6%
FL	140	334	41.9%
OK	47	190	24.7%
GA	1,471	8,955	16.4%
AR	150	1,122	13.4%
TX	49	411	11.9%
VA	753	6,508	11.6%
SC	21	1,428	1.5%
MS	13	993	1.3%
LA	4	1,065	0.4%

B.3: High Levels of Missing Data for West Virginia, Delaware and Maryland

Forty-one percent of the 34,918 ACM students since 2011 have missing ZIP code data. Among the 15 states that currently participate in the Academic Common Market, Delaware, Maryland and West Virginia have the highest levels of missing ZIP code data on their students. Thus, students in these states are underrepresented in the results in most of this analysis.

The data that SREB stores from students participating in the ACM is reported at the state level. SREB only requires state administrators to report a student's name, state of residency and data about the program in which they are enrolled. Reporting and responsiveness rates for non-mandatory data, such as address

information, can fluctuate depending on the reporting protocols at each state agency. Because analyzing address data — specifically ZIP code data — is the purpose of this report, any attempts to extrapolate findings to states with substantial amounts of missing ZIP code data should be approached with caution, given the limited representation of their students' data within the dataset used in this analysis.

Appendix C: Definitions

Categorizing Income Tiers: SREB defines a lower-, middle- or upper-income area as a ZIP code area whose median household income of a given year can be classified as lower, middle or upper income, as defined by Pew Research Center's income tier classifications. Pew Research Center defines middle income adults as those with an annual household income that was two-thirds to double the national median income of the year prior, after incomes have been adjusted for household size. In 2021, they defined middle income adults as those with a 2020 household income between \$52,000 and \$156,000.

Categorizing Race and Ethnicity: We define the categories for race based on the standards defined by the U.S. Census Bureau and the US Office of Management and Budget. Specifically, the eight racial categories used in this analysis follow the eight groups used in the census diversity calculations:

- Hispanic
- White alone, non-Hispanic
- Black or African American alone, non-Hispanic
- American Indian and Alaska Native alone, non-Hispanic
- Asian alone, non-Hispanic
- Native Hawaiian and Other Pacific Islander alone, non-Hispanic
- Some Other Race alone, non-Hispanic
- Multiracial, non-Hispanic

Diversity Index: Using the standard set by the U.S. Census, this index created by Peter Blau measures the heterogeneity of a population, describing the probability that two people chosen at random will be from different race and ethnic groups. It is calculated using the following formula: $DI = 1 - (H^2 + W^2 + B^2 + AIAN^2 + Asian^2 + NHPI^2 + SOR^2 + Multi^2)$.